

## Division problems

Division problems can come in many different forms - some examples follow.



### Sharing problems

Share out £1,500 equally between four people.

$$£1,500 \div 4 = £375$$

This could be done using written methods or by halving twice: half of 1500 is 750, half of 750 is 375.

### Grouping problems

Work out how many boxes that hold 6 eggs each are needed to pack 108 eggs.

$$108 \div 6 = 18 \text{ boxes.}$$

This could be laid out as a written division calculation or by halving and then dividing by three - half of 108 is 54, 54 divided by 3 is 18.



### Rate problems

Workers produce 20 km of road markings in 4 hours. How much is produced each hour?

$$20 \div 4 = 5 \text{ km each hour}$$

This could be done formally or by halving twice: half of 20 is 10, half of 10 is 5.



### Interpreting the answers

In the example problems above, the numbers have been chosen to work out exactly. If the numbers don't divide exactly, then there will be a remainder and an appropriate answer is needed that depends on the situation.

For example:

- In the first problem, the answer is an amount of money. If the answer wasn't exact it would be rounded to the nearest pence.
- In the second problem, if the answer is not exact it would be usual to round down and have the remainder left.
- The third problem can have decimal or fractional answers.

These are examples and not patterns that are always repeated. **Each problem needs to be considered on its own.**